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NOTES OF PRACTICE IN THE U. S. A. GENERAL HOSPITAL, BATON ROUGE, LA., DURING THE YEAR 1863.

[Reported to Surgeon-general DALE by S. K. TOWLE, Surgeon 30th Regiment Mass. Volunteers, and communicated to the Boston Medical and Surgical Journal.]

THE near approach of the close of the year suggests a summing up of the results, and a balancing of accounts professionally as well as pecuniarily, and a period of comparative leisure enables me to note for your inspection a few items of experience going to make up my total for A. D. 1863.

About the middle of May (1863), I was ordered to take charge of the hospital in the building of the Louisiana Blind and Mute Asylum at Baton Rouge, and I have continued in the position to the present time. The main building is five stories high, with wings of two stories, and finely situated on an elevation about thirty feet above, and six hundred yards back from the levee. The building is divided into various sized rooms, accommodating from twelve to fifty patients in each, with broad halls extending through the main building on every floor, and has a broad balcony running all around the two lower stories. The windows are large, hung on pulleys, and in most of the wards on both sides, thus affording as thorough ventilation as possible. There are no water-closets connected with the building, and all those patients not able to go out—and from the upper wards it is a wearisome journey—are obliged to attend to the calls of nature in the wards. This is a very serious deficiency, not only causing much extra labor for nurses, but as all the excrements must be carried out in buckets down the central stairway, it renders it very difficult to keep the hospital free from odor. Why a public building erected at a cost of near four hundred thousand dollars, on a site drained with perfect ease into the river, should have been built without a single water-closet, is not easily understood. As a means of partially obviating this deficiency, I made efforts to get constructed, outside the main building, a large elevator, or "dumb waiter," with landings on each story, so that all slops could be carried down that way, as well as patients, food, &c., carried up; but from the lack of the necessary orders it was not done.

Although the site of this building is unusually elevated for this section of country, yet it is far from being free from the malarial influence of the ubiquitous southern swamp. Within three hundred yards of the rear of the wings runs a narrow, ill-drained bog extending to the river, and to the west, from which direction are the prevailing winds, but a mile across the river, is the broad swamp skirting all the lower Mississippi. The great elevation of the upper wards, however, renders them more nearly free from malarial poison than any locality within my knowledge along the Mississippi in Louisiana excepting, perhaps, the higher buildings in the better and paved portions of New Orleans.

The number of patients at the time I took charge was about two hundred and fifty, and gradually increased until I reported over nine hundred, then decreased again, until now I have about as many as at first. This building being insufficient for the accommodation of that number, the Court House and a hall, both near by, and many hospital tents, were temporarily occupied. The cases admitted were from the 19th Army Corps, engaged in the siege of Port Hudson, but twenty miles distant, and were at least of a grade as serious as the average sent from the front, many of the lighter cases being sent to places offering inferior accommodations.

During the period of my service to the present date, about eight months, there have been admitted patients suffering from wounds, 547; from disease, 1618; total, 2165. During the same period the record shows—

Returned to duty	1625
Transferred to convalescent camp . . .	121
Furloughed	104
Discharged	40
Died, {from wounds, 59 / from disease, 224}	283
Total, ...	2173

Thus showing a mortality from wounds of 10·7 per cent., and from disease of 13·8 per cent., while a little more than seven tenths of all admitted were returned to their regiments.

Of the cases of disease the numbers registered, in official nomenclature, as "miasmatic diseases," are shown in the following table. In the cases there tabulated, only a portion of the diseases classed as "miasmatic" being included, little "miasmatic" influence was noted other than that from the miasm or malaria of the low lands and swamps of this country; hence in my observations I shall use the term "miasm" as synonymous with "marsh-miasm," or "malaria," that being *the* miasm with which I have had to do.

Of the remaining four hundred cases of disease reported, about one hundred, which were convalescents in various stages of recovery from the above diseases, received from other hospitals when they were discontinued, and presenting at their extrance here symptoms of

debility, are not included in this statement. The balance of three hundred was divided between the multitude of diseases to which human flesh is heir, and include also a few complaints known only to the fruitful imagination of "old sogers" and the conscript candidates for "exemption."

Disease.	No. of Cases.	No. of Deaths.	Mortality, Pr. ct.
Typhoid fever	62	20	32·2
Typho-malarial fever	428	63	14·7
Remittent fever	81	6	7.4
Intermittent fever	140	2	1·4
Congestive fever	5	2	40·0
Total malarial fevers	716	93	13·0
Acute diarrhœa	77	1	1·3
Chronic diarrhœa	314	82	26·1
Total diarrhœa	391	83	21·5
Acute dysentery	40	5	12·5
Chronic dysentery	53	21	39·6
Total dysentery	93	26	27·9
Total disentery and diarrhœa	484	109	22·5
Total "miasmatic diseases"	1200	202	16·8

It is not to be supposed that in all cases the recorded diagnosis is strictly correct, for with a steamboat load of sick and wounded to provide for at once, perhaps in the night, one would need the aid of a special sense to always arrive at the exact truth in regard to chronic, complicated cases. Indeed, the symptoms of many of the cases would indicate rather a combination of diseases than any one disease—fevers being inexplicably combined with diarrhœa or dysentery, and *vice versâ*, so that one would hardly know under which class to make the record. And again with the different variety of fevers, the record will often depend upon the period of observation; an intermittent, with well-marked stages, will, if neglected, often in a few days become an equally well-marked remittent, or typho-malarial, or a little farther on will prominently exhibit advanced typhoid symptoms; or perhaps a few weeks or months later die from chronic diarrhœa or dysentery. Between acute diarrhœa and acute dysentery the distinction is usually made without difficulty, but in chronic cases there seldom is marked difference; or rather, perhaps, protracted and fatal cases of diarrhœa, with few if any exceptions, exhibit the dysenteric stools, tenesmus, and ulceration of the large intestine and rectum. So that in the army, and especially in a malarial region—and our armies have so far found few localities not infested with miasmatic poison—while the statistics of the class of "miasmatic diseases" as a whole will approximate very nearly to the truth, the records of the different subdivisions of the class will of necessity be much less exact.

At the risk of being tiresome, I will make a few notes in regard to the symptoms and treatment of some of the diseases in the fore-

going enumeration, beginning with the simple, but not the less troublesome *intermittent fever.*

Before entering the army, my knowledge of this disease was almost entirely theoretical, but for the past two and a half years few friends have become as familiar as "the shakes," both by observation and experience, and I fancy I can "do" a chill with all the grace and *nonchalance* of an Indianian, and then achieve a sweat such as would gladden the heart of the most enthusiastic admirer of the "steam-box."

In the treatment of this disease, I have never yet been disappointed in interrupting its course with sulphate of quinine, and therefore have never used anything else for an anti-periodic when I could obtain that drug. Many cases of long standing have come under my notice and care, and not a few that were reported incurable by quinine; but with the needed attention to the bowels, diet, exposure, and particularly to the administration of the medicine to insure that it be taken, and at the proper time, I have invariably found the course of the disease ended by the time for the third, or at the farthest the fourth chill. Of course if the patient is still exposed to the malarial poison, and especially if, as is often the case, the quinine is discontinued as soon as the regular order of the disease is interrupted, a fresh attack is almost certain to occur within a short time. No one thing in the general care of malarial disease seems to me of more importance than for the patient to be placed in a house, and kept rigorously in from the influence of the mid-day sun and damp night air until convalescence is well established. I have known many cases of intermittent fever, pronounced incurable by quinine, to recover at once, without a single dose of medicine, on being removed from tents to a house, and being kept constantly in doors for a week or ten days. While on the Potomac, I was so well pleased with the progress of typhoid fever cases in hospital tents that I thought them quite as good as houses; but since being in this Department I have become convinced that cases of malarial disease do very much better in buildings than in tents—the canvas protecting the patients much less than boards from the two great excitants to the action of miasmatic poison, the heat of the sun and the chilling, heavy dews at night.

I have never been in the habit of giving mercurials or other cathartics, as a preliminary to quinine, unless clearly indicated as necessary were no anti-periodic required; and have often been surprised at the rapidity with which the vitiated secretions would become normal on the arrest of intermittents by quinine alone. Few cases in my experience have required, under favorable circumstances, more than fifteen grains of sulphate of quinine in twenty-four hours in solution during the intermission, though occasionally twenty or even thirty may be necessary. Five-grain doses, given ten, six and two hours before the expected time of the chill, has been the most frequent

manner of prescribing the solution in ordinary cases, the quantity being one third more if given in pill, the medicine being continued in diminished doses for a week or ten days after the interruption of the paroxysms in cases of much standing. The addition of capsicum to quinine has appeared to me of great benefit, and in chronic debilitated cases alcoholic stimulants are indicated and do good; but I have never found it safe to rely on "quinated whiskey" for the cure of intermittents, though useful in convalescence.

Although few cases of intermittent fever prove directly fatal, yet it is far from being, in the army, the innocent disease statistics would indicate. A large proportion of the cases reported as belonging to all the other "miasmatic diseases," are developed from imperfectly cured intermittents; and I am quite confident that in this region no one measure would so much reduce the number of cases of chronic diarrhœa of an intractable nature, as strict and persevering attention by regimental medical officers to the thorough eradication of all malarial poison in cases of intermittent fever. It is not sufficient to advise these men to come and get treatment for a few days after their chills cease, or to give them quinine powders to carry in their pockets, but it should be made a certainty that the medicine is swallowed as directed, and that they are exposed no more than absolutely necessary for a week or two at least.

Of the so-called *congestive fever* I have seen but few cases this season, only five having been admitted here, two proving fatal. Nor have the cases coming under my care this year presented the suddenness and violence of attack and rapid progress of those I treated during the summer of 1862, from amongst the troops that had spent June and July in the swamps opposite Vicksburg, Miss., digging under the burning sun in the famous ditch that was to have turned the Mississippi from its course, but failed from the fact that the stubborn old Father of Waters "couldn't see it." But though less violent, the same condition of collapse was presented this year as last, with cold, shrivelled, clammy skin, great restlessness, and partial or complete insensibility.

Mustard paste externally, with brandy and quinine internally, all used very freely, comprise the staple of the treatment this, as last year, the result being not much different. If once a decided reaction can be brought about, and the stomach does not reject medicine, recovery is almost sure, though often very tedious. Hot bathing, with or without the addition of mustard, I tried in a few cases last year, but soon became convinced that the disturbance of the patient by handling, and the exposure of the skin to the air, did more harm than the bathing did good, and I fell back to the clear mustard paste, to which I adhere with a reliance almost equal to that of a venerable country neighborhood nurse in her specifics.

And here I would remark, that in malarial disease, much as the condition of the skin requires attention, in my opinion bathing of

the whole person should be practised with much discrimination and care. I have no great faith in the curative powers of dirt, but I often order dirty patients sick with miasmatic disease to be put to bed on admission unwashed, directing the cleansing process to be performed piecemeal, and with as little exposure as possible of wet skin to the air of even a well-warmed ward.

In August, 1862, a patient convalescing in my regimental hospital from malarial fever, who had recovered sufficiently to walk out of doors, by a mistaken order of his commanding officer, was stripped and washed with water from the river. In the midst of the washing he fell back, gasped feebly a few times, and before I reached him, though near by, he was dead. The check to the circulation, slight as it might seem, was too great for the strength of the enfeebled and enervated heart to overcome, and the thin, pale, half-vitalized blood ceased to flow. I had before that, on theoretical grounds, forbidden general bathing by the nurses without my special order in each case, and this instance demonstrated but too forcibly the necessity for the caution, as well as the danger of any but medical officers directing at all for the sick, especially in cases where, as in miasmatic fever, the vital powers are reduced to a low ebb and the nervous system robbed of its energy and elasticity.

The majority of the cases of remittent fever that have come under my notice this season have been by no means well marked, but have presented decidedly mixed symptoms. Last year I had in my own regiment a very large number of cases (not having access now to the records I cannot tell how many, but counting by hundreds), nearly all presenting prominently the symptoms of remittent as described in the books—the sudden onset, raging fever, remission, distress and "sinking" sensation at the stomach, obstinate vomiting, often accompanied by extreme thirst, and derangement of the secretion of the liver, the skin in some cases being discolored almost as much as in yellow fever. Some of the cases, indeed, were at first pronounced "endemic yellow fever" by a medical friend, but as time passed on and no instance of black vomit appeared, he changed his diagnosis.

This year the remissions have been less marked, often nearly disappearing after two or three days, though the fever would continue, and enteric symptoms become more prominent than gastric.

In treating this disease I have found it of great importance to give medicine, as far as possible, in the pill form, and to allow not over an ounce of any liquid to be swallowed at a time, in order, if possible, to avoid the commencement of vomiting, as often it is exceedingly difficult to check it when once begun. As a general rule, the more intense the thirst, and the more vehement and incessant the demand for water, the less relief is experienced by drinking, and the more surely will a large draught of any liquid produce and perpetuate vomiting. Often, when refusing the affecting importunities of some poor fellow burning with gastritis for "just his fill once of

ice-water," I have thought of the traditions handed down of those olden-time stern-faced fathers in medicine, who believed water deadly in its influence on fever patients; and have queried whether their anti-drink-and-bathing practice did not originate in treating fevers of malarial origin, with gastric inflammation and danger from sudden and fatal chills. Small pieces of ice, allowed to melt in the mouth, or swallowed at regular intervals of from five minutes to half an hour, I have found useful; but the unrestricted use of ice or ice-water in remittent fever, or indeed in any disease of the hot season in this climate, I believe to be productive of great injury. Lime-water added to milk and water, thin arrow-root gruel, or chicken-tea (for a broth will sometimes set well on a stomach that will reject a gruel), given in small quantities, with repeated applications of mustard to the epigastric region, I have found more successful in relieving vomiting than the exhibition of any drug. In some instances I have tried the large doses of calomel often given by our heroic Southern brethren in the profession, but the result was not such as to convert me to that style of practice. Three or four blue-mass pills, followed by a simple dose of castor oil (which is often retained when one is sure it will come up again), or perhaps merely an injection, have seemed to me to produce quite as good effects on the secretion of the liver as more powerful medication; and I am thoroughly convinced of the importance of avoiding all irritation of the inflamed mucous membrane of the stomach and duodenum as sedulously as one would that of the eye in acute ophthalmia.

Many of the cases registered *typhoid fever* were undoubtedly wholly of malarial origin, and without the pathognomonic rose spots of that disease; but at the date of their admission they had lost all the early characteristic symptoms, presenting only the prostrated, low, vitiated, semi-conscious condition of the last third of severe cases of typhoid fever. These cases of "typhoid state," as they might be called, were very serious, presenting a much larger percentage of deaths than those known to be typhoid fever proper; and in those cases that eventually recovered, convalescence was very slow and halting.

I do not remember to have seen this season, amongst those who had spent last year in this Department, a single case of typhoid fever such as we see in New England; and most of the cases occurring amongst the new comers after they had been here two months, were decidedly modified by the miasmatic surroundings. Indeed, one could almost tell how long a New England fever patient had been in this section of country by the type of his disease; a genuine case of uncomplicated typhoid being strictly pathognomonic of a recent Down-East Yankee, all uncontaminated in body and soul by the physical and moral miasm infesting this whole fertile wilderness of the Sunny South.

In all cases where there were any signs of malarial complication, ten,

fifteen, or rarely twenty grains of quinine per diem for the first two or four days (lessening the dose at once on the access of signs of quininism), were of great service; and I often saw marked improvement from this course in cases in which I had not been able to discover any indication for the use of an anti-periodic. Hence I fell into something of a routine of prescribing quinine in full doses during the first third of typhoid fever; and in those cases presenting no indication of benefit from this medicine, I could not in a single instance see any sign that it did harm. But after the first third of the disease I could discover no benefit from continuing the large doses, but on the contrary thought I got better effect from one or two grains three times a day, with wine, milk punch, beef-tea, and all the adjuvants of a tonic and stimulating treatment. During the spring I saw at the different regimental hospitals, by invitation of the surgeons of several New England nine months' regiments, a great many severe cases of typhoid fever (then quite prevalent in the new regiments here), and although most of them did not exhibit any remission, and hence had not been thought complicated at all with malaria, yet the fact was indisputable that they did better after the introduction into the treatment of full doses of quinine during the first part of the disease; and in cases in which quinine had not been given at first, it often, though not invariably, was of apparent benefit in somewhat smaller doses in the later stages of the disease.

The term "typho-malarial fever" has been adopted into official nomenclature since the commencement of the present war, but seems destined, from its appropriateness to a large class of cases, to become a permanent addition to at least the list of our army diseases.

As I have before remarked, after soldiers have been for some time in the field the character of their diseases becomes modified to a marked degree. The various influences of army life, such as change of diet, sleeping irregularly and on or near the ground, exposure night and day to all varieties of weather, and abrupt alternations of full feeding with light work, and long protracted taxing to the utmost the physical powers upon unsuitable, ill-prepared and scanty food—all these, and many more, are not only agents for the production of abnormal conditions, but also so change the system that it responds quite differently to the ordinary causes of disease. Hence it follows that few of the serious cases of malarial disease one is called upon to treat after six months' service in the army, are either simple, well defined, or exactly described by any of the old terms, as intermittent, remittent, or typhoid, but partake in some degree of the nature of all; and from the previous surroundings of the patient are inclined to rapidly assume a decided typhoid type, and are therefore aptly designated typho-malarial.

The wide range indicated by this term causes almost every variety of camp fever to be registered under it, from cases of no serious moment compounded of a little malarial disease and much exhaus-

tion from fatigue and exposure, to severe cases of typhoid fever, rendered still more grave by the addition of the effects of miasmatic poison and by lack of timely care. Few of these cases present in any part of their course after they enter the hospital any decided intermission or remission, but careful watching will in almost every instance discover a periodical ebb and flow of the fever tide; and the white, thick, pulpy, rounded tongue will dumbly speak of malaria. In such a comprehensive class of cases, the treatment must of course be equally inclusive; the indications in one patient being in decided contrast, in many respects, to those in another. Yet varied as are the cases, two items of treatment may, in my opinion, be set down as being as nearly without exception as any human rule, viz., quinine in full doses during the first stage of the disease, and a tonic, supporting diet all through the course of the illness back to established health and full rations again. Inattention to either of these points will often in a few days, in an apparently mild case, develope the sordes and dry, dark, cracked tongue and lips of a hazardously prostrated condition. Soldiers may, and often do, perform prodigies of strength and endurance while fasting; but when sick they don't bear starving well, but require, instead of slops and gruels, at the earliest possible moment an approximation to their habitual concentrated nourishing food. Indeed, I am getting to believe more and more in the importance of nutritious food in any protracted disease, and feel much less anxiety when my stock of drugs gets low, than when my supply of fresh beef, mutton, chickens, oysters and eggs fails me, as it is prone to do in this Department, in spite of the best laid plans of supply. In fact, it is hardly possible for patients to fare sumptuously every day when rations are commuted at but eighteen cents a day, and eggs, when attainable at all, are three fourths to one dollar a dozen, *milk and water* fifty cents a gallon, and everything else in proportion. I have often fervently hoped that if confined to the value of eighteen cents a day for the board of each soldier, I might at some period of my life have charge of a hospital in some part of the productive North, where one can buy the fruits of the earth without paying such an enormous tax as is levied here to compensate for a lack of thrift and gumption.

Following as a sequence in the track of the foregoing varieties of fevers, comes the least hopeful portion of the most disheartening class of ailments that come under the care of the army surgeon; viz., chronic enteric affections. Although these cases are nominally divided into chronic diarrhœa and chronic dysentery, the serious cases, so far as I have observed, all really become chronic dysentery; the symptoms in the later stages indicating unmistakably what an autopsy always reveals—ulceration of the colon.

Many cases registered as chronic diarrhœa are merely protracted cases of simple diarrhœa kept up by some continuous error of diet, drinking water, or surrounding circumstances. These, on being

placed in hospital under proper restrictions as to food, rest and exposure, are usually very tractable. The disease being kept up by a constantly acting cause, without any organic lesion, no sooner is the cause removed than nature returns to health, with but little aid from drugs. One of the most important points in the treatment of this class of cases (which, fortunately, comprises quite a proportion of all admitted), is not to return them to duty too soon. The full strength of the patient by no means returns as soon as the disease is checked, and if he be at once sent into the field, a relapse is almost certain. I have found it good economy for the service in these cases to keep them a couple of weeks after apparent recovery on some light duty about the hospital.

But a large portion of the cases of chronic enteric affections are, as mentioned above, sequelæ of malarial fevers; and in these, as in phthisis, the end of a long course of "getting a little better," with sad frequency, is death. In these patients to a sallow, anæmic, cadaverous look, indicating a general depravation of the secretions, and to a wasted, shrunken appearance, showing a deficiency in the powers of nutrition, is almost sure to be soon added a slight tenderness in the region of the colon, then decided soreness, with more or less tumefaction, and finally dysenteric tenesmus, with sanious and purulent evacuations, and all the signs of ulceration of the lower bowel. The brain and nervous system suffer from imperfect nutrition quite as much as any portion of the patient; and instead of that buoyant courage that of itself is better than any medicine, comes a listless, discouraged, depressed feeling that reacts seriously to the hindrance of recovery.

In the treatment of this class of cases, one has abundant opportunity to run through a long list of remedies, and to get little but dissatisfaction from them all. In no disease, perhaps, is the old adage so applicable, "a new broom sweeps clean"; a new treatment often appearing to work like a charm for a week or so, then losing its effect almost entirely. This fact indicates the propriety of frequently changing the article prescribed to effect the same object. Astringents and opiates must, of course, occupy constantly a prominent place in the treatment; but care is necessary that they are not pushed to the point of retaining too long the vitiated secretions and excretions. A friend in charge during the summer of a large hospital here, thought he got most excellent results from the continued use of strychnine, combined with quinine, opiates and astringents in moderate doses. At his suggestion I tried the same course, but, though I thought I saw much improvement in some cases in restoring tone to the enfeebled intestines, yet I was not as well pleased with strychnine as from his reports I hoped I might be. The mineral acids in many instances gave good results, as well as the muriated tincture of iron. Small doses of iodide of potassium, combined with light opiates, often acted admirably in aiding in the restoration of the natural secretions.

In most of the cases received during the summer, there was more or less scorbutic complication; and in these, the free use of lemons, and a diet composed largely of fresh vegetables, were of great service; the diarrhœa often yielding precisely as the signs of scurvy disappeared.

During the early fall of 1862, I had a large number of serious cases of chronic diarrhœa, many of them exhibiting symptoms of scurvy. The only vegetables within my reach, in any considerable amount, were green oranges; and, as they were very grateful and palatable to the taste of the patients, I bought with my hospital fund large quantities of the fruit, and soon became convinced that few articles of medicine or food did as much good. From what I have observed during the nearly two years I have spent in this department, I judge that no one thing is more conducive to health in this climate, especially during the summer season, than a constant use of fresh fruit and vegetables of good quality and in moderate quantity.

In the treatment from May to October, of serious cases of disease of the bowels, there is, however, no course of medication or diet that will take the place, especially to northern and eastern men, of a change of climate. The debilitating effects of the long sweltering heat more than counterbalance the influence of nutriments, tonics, or stimulants; while the miasmatic poison is ever present to develope new or perpetuate old disease. I have been happily surprised on sending home feeble, cadaverous-looking patients in July or August, to see them return in October plump and hearty; and I have been also sadly disappointed that many a mild case in June has proved serious in July, and fatal in August or September, in spite of every effort within my power.

It has seemed to me that it would be good economy for Government to have a Hospital near the northern sea coast set apart for the especial purpose of receiving for treatment patients from this Department—the men to be transferred without the tedious formality of procuring a furlough. Not only does it often happen that so much time elapses before furlough papers pass through the prescribed mill and get back to the soldier, that he is beyond the chance of benefit by the change, but very many are in need of the tonic northern air who have no homes, or uncomfortable ones, and are not pecuniarily able to provide such attendance and conveniences as they require, to say nothing of the claim they have on the United States for medical care during illness. With such a Hospital established at some accessible and healthy point, the patients to be transferred on recommendation of the Medical Director, or a Board of Examination, and a vessel properly fitted up constantly employed in transportation back and forth, I am confident very many lives might be saved to the service and to their friends. I am quite sure, too, that during the past season many soldiers were discharged from the service, who, by a two months' transfer to a Hospital in such a locality, followed per-

haps by a month's furlough to complete convalescence, would now be fit for active duty. The sea voyage home and back, of itself, in a comfortably prepared Hospital Ship, would cure many cases that here go down under the best care. The need for a transfer to the North is felt equally in treating wounds, as disease; many proving fatal here during the long debilitating hot season, that in New England would make good recoveries.

Amongst the pleasures I anticipate in a permanent return one of these days to New England—that bleak, sterile country that, though spoken evil against, every wandering son loves and longs for more and more for every day's absence—I reckon as not least the professional relief in practising the healing art where malaria is not inhaled at every breath, where nature is not always antagonistic to the physician, and where a vigorous, rapid, and complete convalescence is not an impossibility.

In concluding this letter, I am sure, my dear sir, I should beg pardon for at least two points connected with it; viz., first, for writing it at all—and second, for making it so long; for both of which offences I hope you will "have me excused." Nearly everything I have written I am aware is the commonest kind of commonplace—but so is nearly all of one's life—and I have written as I have seen and done.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Nov. 9th.—*Injection of a Nævus with Perchloride of Iron.*—Dr. Hodges said he had lately treated a case of nævus, on the side of the neck of a child, by injection with equal parts of perchloride of iron and water. The disease, which had been rapidly growing, was of the size and shape of an almond-meat. The effect of the operation was to turn the disease immediately quite black, and in a week or ten days it dried up and fell off, leaving no scar, and without having caused the least trouble. Only two or three drops of the solution were used. Dr. H. would not have thought of mentioning the case, had he not since read in a London journal the report of a case in which this mode of operating in a nævus without large veins, situated at the side of the nose, in a child of quite small dimensions, was instantly followed by the death of the patient. Dr. H. had often treated varicose veins in this way, without the occurrence of any unpleasant symptoms except in one instance, in which it was followed by inflammation and a slough.

Nov. 23d.—*Existence of the Hymen at the time of Labor.*—Dr. C. E. Ware said he had lately attended a young woman in her first labor. On attempting to make a vaginal examination, he found the entrance to the vagina almost completely closed by the hymen, so that he could

only introduce the tip of his finger. As the membrane became distended by the pressure of the head, Dr. W. tore it with his finger, and delivery was speedily accomplished.

Dec. 14th.—*Cancer of the Stomach.*—Dr. Jackson showed the specimen, which was sent to him by Dr. Ruschenberger, Surgeon of the Charlestown Navy Yard. The whole circumference of the stomach, to the extent of about two inches from the pylorus, was completely disorganized. It was thickened, smoothly ulcerated upon the surface, but sloughy to the extent of half an inch or more. The disease was quite defined, and the structure, though rather firm, resembled encephaloid rather than scirrhus, there being no trace of the natural tissues. Otherwise the organ was healthy. The head of the pancreas was enlarged to the size of an English walnut, indurated, whitish, opaque and disorganized.

The patient was an Acting Master in the U. S. Navy, 49 years old, who had not been much at sea; habitually abstemious, drinking water chiefly, and not accustomed to tobacco. About December, 1862, he began to feel weakness in the knees and palpitation on ascending stairs. These symptoms increased, and he became speechless on reaching the top of a flight of stairs. He also had constipation, flatulence, acid eructations and other dyspeptic symptoms, which were attributed to fatigue and worry of mind. He first came under treatment May 14th, 1863. In July he began to have pain in the epigastrium, extending to the spine, with tenderness at the scrobiculus cordis, limited to a region about two inches in diameter. The pain was increased by the recumbent position. The complexion had a straw-colored hue. Vomiting began Oct. 5th, and recurred daily, or every second or third day. Blood was observed in the ejected matters, Oct. 18th. A portion of the matters vomited on the 28th was filtered through paper; nucleated cells, a few blood globules and some epithelial matters were observed in the filtrate. Between the 8th and 22d of November there was no vomiting. The patient slowly and regularly emaciated, and lost muscular power from the beginning to the close. He died Nov. 30th. During a part of the time he was under the care of Dr. Teulon, of Newton.

Jan. 11th, 1864.—*Tracheotomy in Croup.*—Dr. Cabot had lately operated in two cases of croup. One patient recovered, the other died. The first was a girl, 6 years old. When Dr. C. first saw her she was greatly exhausted, and livid. He advised an immediate operation. The parents refused at first, but consented some hours later. The child was removed to the hospital and the operation was done, but it died in fourteen hours.

The other patient was a boy, 15 months old. There was lymph in the throat, the pulse was intermittent, the patient gasping, and the case looked very unpromising. The trachea was opened; membrane was expelled at the time, and subsequently. The child immediately improved, and eventually recovered; the tube was removed in a week. The child had not been weaned, and nursed throughout the whole.

Dr. Clark said he operated, last week, on a little girl, 3 years old, who had been sick with croup three or four days. Immediate relief followed, but the child died suddenly the next day, probably from obstruction in the tube. Dr. Clark said he had also operated lately

on a patient of Dr. Hooker, of East Cambridge, a boy, 5 years old. The patient recovered; the tube was removed in five days.

JAN. 25th.—*Encephaloid Tumor of the Eyeball.*—Dr. BETHUNE showed the specimen. The patient, a man 29 years old, entered the Eye and Ear Infirmary for trouble in the left eye, which began six years ago. For the last year he had been blind of that eye, and had occasionally severe paroxysms of pain. The conjunctiva was thickened and reddened, and a fungous growth projected from between the lids. The eye was removed, and presented no enlargement. The cornea appeared atrophied, and the anterior chamber was nearly obliterated. The internal tissues, wholly disorganized, were transformed into a dark brown, pasty, homogeneous mass, which presented all the gross and microscopical appearances of encephaloid cancer. The sclerotic seemed healthy. Dr. Bethune remarked that the great slowness of the growth, and the fact that the disease was entirely confined to the internal structures, were so far favorable to a permanent cure. This form of cancer was, in his experience, very rare in the eye—melanosis being the most common variety.

JAN. 25th.—*Abscess of the Liver.*—Dr. CHEEVER reported the case. The specimen was found in a dissecting-room subject, but the body was traced to one of the public institutions, from which a history of the case was obtained. The patient was a Frenchman, a sailor by occupation, who had been sick since June with diarrhœa, accompanied at times with bloody stools. He entered the Alms House Oct. 15th, and died Jan. 2d. He had every day a violent and profuse perspiration, but no chills were ever noticed. He had no jaundice. There was pain referred to the umbilical region. At one time the urine was very scanty. He grew weaker and emaciated daily until his death. Abscess of the liver was not suspected, but the case was supposed to be typhoid. On examination, an abscess was found in the liver, containing a pint of pus. There was no peritonitis.

Dr. JACKSON remarked on the accurate definition of the abscess. The rest of the liver was perfectly healthy. The pus was extraordinarily thick and viscid, seeming almost solid. The walls of the abscess were less than a line in thickness. The condition of the blood-vessels was thoroughly examined, and found to be perfectly normal.

JAN. 25th.—*Cataracts, with unusual Toughness of the Capsules.*—Dr. WILLIAMS said he had lately operated for cataract on a man 50 years old, and his daughter, aged 6, the latter never having seen. In the case of the child, the cataracts were fluid, and the contents of the capsules escaped when they were punctured. The father had lost his sight by some previous disease, and regained it, which probably caused softening of the tissues of the eyes, as there was some escape of vitreous humor when the cornea was incised. The capsule could not be incised by ordinary efforts, owing to its toughness. Dr. W. then performed iridectomy, and, by means of an instrument specially devised for the purpose, he drew both lens and capsule from the eye. The same operation was then done on the other eye.

Excellent results were obtained in the eyes of both the patients.

JAN. 25th.—*Scirrhus of the Male Breast.*—Dr. H. J. BIGELOW exhibited a specimen of this disease, this being the third or fourth case that he had met with in his practice. The patient was a gentleman 69 years of age, and the disease had existed for four or five years;

the tumor having doubled its size during the last year, and being, at the time of its removal, half as large as a horse-chestnut. Microscopically and to the naked eye the specimen was a typical one.

JAN. 25th.—*Polypus of the Nose.*—Dr. BIGELOW exhibited the specimen. It was of the kind commonly called gelatinous, but it was infiltrated with lymph as well as serum, and in size it almost equalled a horse-chestnut. The patient, a mechanic, about 28 years of age, applied at the Hospital as an out-patient. Both nostrils had been obstructed for less than a year, and a small polypus was seen upon the left side. The forceps were very carefully placed so as to embrace the supposed neck of the larger mass; and, some thirty unsuccessful attempts having been made to extract it, the operation was abandoned. Dr. B. stated to the class that there was evidently a large polypus in the nostril, but that he could not explain the result of the operation. The man then went to the back of the room to wash his face, when the tumor descended into the throat, was hawked up, and he at once came forward with it in his hand. The small anterior polypus that appeared in the nostril is seen connected with the principal mass. The right nostril, Dr. B. remarked, was probably obstructed by a deviation of the septum. The polypus had doubtless been detached at first, but was too large to be drawn through the anterior nares.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURDSAY, FEBRUARY 18, 1864.

CITY PHYSICIAN'S REPORT.—We have read with much interest the annual report of the City Physician, Dr. J. S. Jones, for 1864. Few of us probably are aware of the extent and importance of the labors dependent upon a conscientious performance of the duties of this office. Attendance upon the Jail, City Prison, Temporary Home, and the various police stations is imposed by city ordinances, as well as the examination of candidates for the police force and of persons dying without the attendance of a physician, but a far wider field of usefulness is open to an officer disposed to turn the influence he should possess with the city government to its best account. Matters of the highest importance in a sanitary point of view are neglected from year to year or left to the unadvised discretion of a non-professional department of Internal Health, which might easily be remedied by our efficient police force under the direction and control of an energetic medical man. City officials are too apt to be guided by the letter of the law instead of the necessities of the case, and to excuse any half-way measures in a good cause by the plea of want of authority. For our part we should prefer an occasional overstepping the bounds of written statutes in the way of reform, and more frequent summary action in accordance with the promptings of common sense to the constant appeal to the opinion of the City Solicitor, as is now too often the course in emergency.

We make these remarks not at all in the spirit of reflection upon the retiring medical officer of the city, but with the hope that increased discretionary power may be placed in the hands of his successor,

and that a body of policemen may be always at his disposal to investigate the cause of a bad odor, to report the sale of diseased meat, to enforce proper drainage, or to prevent the crowding of tenements and the spread of infectious diseases. He should, in fact, be the active advising physician of those entrusted with the administration of the city, and his counsels should be sought and obeyed as promptly as are those of the family physician in the household. We are pleased to notice in the report a manifestation of this praiseworthy spirit by the municipal government in connection with certain cases of smallpox, which threatened to burst beyond control during the past year. There can be no doubt that the wise precautionary measures adopted at that time by the City Physician prevented an epidemic which might have been as wide-spread and fatal in its character as that of 1859 and 1860. What these precautions were, and how alarming is the amount of material only awaiting the spark to blaze into a fearful pestilence thus discovered in our midst, may be seen by the following extract:—

"In September, fourteen cases of smallpox were reported at one time in an unhealthy locality. Tenement buildings, in which eighty families resided, covered a small area in close proximity to the house in which the disease first appeared.

"These cases were in a family of emigrants who had arrived from Liverpool at New York, a short time previously; the vessel in which they came had the disease on board. Other cases were reported in wards one, two, three, four, and five.

"With the approval of his Honor the Mayor, and the co-operation of the Committee of Internal Health, officers were detailed from the Police Department by the Chief of Police, and were placed at the disposal of the City Physician. Twenty-nine hundred and forty families were visited in wards one, three, four, and five. Eleven hundred and ninety-one persons were found unprotected by vaccination; a large part of this number were vaccinated at the office of the City Physician. The sick in some cases were removed to hospitals. In ward two, thirty-one hundred and twenty families were visited. Eight hundred and forty-six persons not vaccinated were found."

During the last epidemic, our local sanitary association endeavored to obtain from the State Legislature more stringent regulations by which the increasing prevalence of this disease amongst us might be checked, but the subject was referred to the next session, at which time the temporary fears of the community had subsided, and the bill, having been unwisely attached to one upon State registration, was with this lost. Its fate only illustrates the necessity of seeking protection from future trouble in decisive city ordinances, and by conferring upon the city physician absolute discretionary powers in relation to vaccination, not only during the prevalence of an epidemic but at all times.

Materials of which the Sun is Made.—Of all the results which science has produced within the last few years, none has been more unexpected than that by which we are enabled to test the materials of which the sun is made, and prove their identity, in part at least, with those of our planet. The spectrum experiments of Bunsen and Kirchhoff have not only shown all this, but they have also corroborated previous conjectures as to the luminous envelope of the sun. I have still to advert to Mr. Nasmyth's remarkable discovery, that the bright surface of the sun is composed of an aggregation of apparently solid forms, shaped like willow-leaves or some well-known forms of Diatomaceæ, and interlacing one another in every direction. The forms are so

regular in size and shape as to have led to a suggestion from one of our profoundest philosophers of their being organisms, possibly even partaking of the nature of life, but, at all events, closely connected with the heating and vivifying influences of the sun. These mysterious objects, which, since Mr. Nasmyth discovered them, have been seen by other observers as well, are computed to be each not less than 1,000 miles in length and about 100 miles in breadth. The enormous chasms in the sun's photosphere, to which we apply the diminutive term "spots," exhibit the extremities of those leaf-like bodies pointing inwards, and fringing the sides of the cavern far down into the abyss. Sometimes they form a sort of rope or bridge across the chasm, and appear to adhere to one another by lateral attraction. I can imagine nothing more deserving the scrutiny of observers than these extraordinary forms. The sympathy also which appears to exist between forces operating in the sun and magnetic forces belonging to the earth merits a continuance of that close attention which it has already received from the British Association, and of labors such as General Sabine has with so much ability and effect devoted to the elucidation of the subject. I may here notice that most remarkable phenomenon which was seen by independent observers at two different places on the 1st of September, 1859. A sudden outburst of light, far exceeding the brightness of the sun's surface, was seen to take place, and sweep like a drifting cloud over a portion of the solar face. This was attended with magnetic disturbances of unusual intensity and with exhibitions of aurora of extraordinary brilliancy. The identical instant at which the effusion of light was observed was recorded by an abrupt and strongly-marked deflection in the self-registering instruments at Kew. The phenomenon as seen was probably only part of what actually took place, for the magnetic storm in the midst of which it occurred commenced before and continued after the event. If conjecture be allowable in such a case, we may suppose that this remarkable event had some connection with the means by which the sun's heat is renovated. It is a reasonable supposition that the sun was at that time in the act of receiving a more than usual accession of new energy; and the theory which assigns the maintenance of its power to cosmical matter plunging into it with that prodigious velocity which gravitation would impress upon it, as it approached to actual contact with the solar orb, would afford an explanation of this sudden exhibition of intensified light in harmony with the knowledge we have now attained that arrested motion is represented by equivalent heat. Telescopic observations will probably add new facts to guide our judgment on this subject, and, taken in connection with observations on terrestrial magnetism, may enlarge and correct our views respecting the nature of heat, light and electricity. Much as we have yet to learn respecting these agencies, we know sufficient to infer that they cannot be transmitted from the sun to the earth except by communication from particle to particle of intervening matter. Not that I speak of particles in the sense of the atomist. Whatever our views may be of the nature of particles, we must conceive them as centres invested with surrounding forces. We have no evidence, either from our senses or otherwise, of these centres being occupied by solid cores of indivisible incompressible matter essentially distinct from force. Dr. Young has shown that even in so dense a body as

water, these nuclei, if they exist at all, must be so small in relation to the intervening spaces, that 100 men distributed at equal distances over the whole surface of England would represent their relative magnitude and distance. What, then, must be these relative dimensions in highly rarefied matter? But why encumber our conceptions of material forces by this unnecessary imagining of a central molecule? If we retain the forces and reject the molecule, we shall still have every property we can recognize in matter by the use of our senses or by the aid of our reason. Viewed in this light, matter is not merely a thing subject to force, but is itself composed and constituted of force.—Sir Wm. Armstrong *at Meeting of British Association.*

New City Hospital.—We are pleased to see that the Trustees of the City Hospital have elected Dr. John Homans to fill the place of senior physician made vacant by the death of Dr. J. C. Dalton. The city may congratulate itself upon acquiring the services of a physician so mature in wisdom and so respected and beloved by all.

Water as a Sanitary Agent.—General Morin, who has much occupied himself with improvements in the ventilation of public buildings, in a note addressed to the Academy of Sciences, in Paris, treats of what he terms the "hygrometricity" of confined places. Much struck with the importance which the English engineers and authors attach to the imparting to the air employed for ventilation, whether heated or not, a certain amount of moisture, he was induced to investigate whether the salubrity of such air might not be due in some measure to the development of a certain amount of electricity by the passage of the air through the vaporized water (as in the case with regard to dew and rain during storms), giving rise to the production of free oxygen. If this or some analogous modification can be shown to take place, we have in our hands a simple, efficacious, and economical means of purifying the air of inhabited places, especially in summer. Air containing free oxygen, possesses in a high degree the property of burning certain miasmata and emanations from bodies in a state of putrefaction. General Morin accordingly instituted some experiments, in order to ascertain whether the dispersion or solution of a certain quantity of sprayed water in the air sensibly modified its electrical condition. The results show the extrication of free oxygen, and the subsequent or concurrent formation of an acid. As both the oxygen and the acid, probably a nitrous compound, possess the property of destroying putrefactive emanations, their presence sufficiently proves that the vaporization of water in the air, besides the increase of moisture and depression of temperature which it gives rise to, may exert an action on the animal economy, and upon the air of habitations, deserving the attention of sanitarians.

The *Sanitary Reporter*, from which we take the above, says that the Houses of Parliament, in London, have been for some years ventilated by means of moist air, produced by a spray jet. At the end of the delivery water-pipe is affixed a movable nozzle, perforated with minute holes. The force of the water in passing through the orifices, causes

the nozzle to revolve after the manner of the Catharine wheel used in fireworks, and the water is thus distributed throughout the surrounding atmosphere, producing a kind of Scotch mist.—*American Gas Light Journal.*

City Physician.—The announcement of the election of Dr. William Read as City Physician will be received with much satisfaction by all our readers. The City Government could have chosen no one more eminently fitted to perform the duties of this office.

Economical Management of the U. S. Sanitary Commission.—Mr. J. E. Williams, after special inquiries, communicates the following statement to the *N. Y. Evening Post.* We may add to it, that if any gentleman in any office in the country renders services in comparison with which his pay is a pittance, it is the Secretary referred to:

Every executive officer of the Commission gives his services gratuitously; not one receives a dollar compensation, except the Western Secretary, whose salary is $3,000 per annum. There are about two hundred paid employees, who receive an average amount less than forty-five dollars per month. The whole expenses attending the distribution of articles amount to a little over two per cent. That is to say: One hundred thousand dollars' worth of supplies are delivered to hospitals and to the army at different posts, for something less than two thousand five hundred dollars expenses.

Rush Medical College, Chicago.—The Commencement exercises of the 21st annual course of lectures took place on the 27th ult., when the degree of Doctor of Medicine was conferred on 79 gentlemen. Prof. Brainard, President of the Faculty, conferred the degrees and delivered a valedictory address.

Southern Ohio Lunatic Asylum.—From the Ninth Annual Report, we learn that there were remaining in the Asylum Nov. 1, 1862, 161 patients; admitted during the year ending Oct. 31st, 1863, 91; number under treatment during the year, 252. Discharged, as recovered, 59; improved, 9; unimproved, 7; died, 14. Remaining in the Asylum Nov. 1st, 1863, 163. Since the Institution was opened, September 1st, 1855, 996 patients have been admitted. Of these, 512 have recovered, a proportion of 51·46 per cent. upon the admissions, and 61·47 per cent. calculated upon the whole number of discharges.

Wisconsin State Hospital for the Insane.—Number of patients remaining Sept. 30, 1862, 131; admitted during the year, 123; total, 254. Discharged during the year, 66; remaining, Sept. 30th, 1863, 188. Of the 66 discharged, there have recovered, 37; improved, 16; not improved, 4; died, 9. Since the opening of the hospital, 357 patients have been admitted. Dr. J. P. Clement, Medical Superintendent, who has been connected with the Institution since its first opening, has tendered his resignation.

Wills Hospital.—Dr. S. Littell, who has served this hospital so faithfully and ably as one of its surgeons for upwards of a quarter of a century, has resigned: Dr. Hunt, recently elected one of the surgeons to the Pennsylvania Hospital, has also resigned from Wills, and a third vacancy in the surgical staff has been created by the absence of Dr. Harlan, Surgeon U. S. V. At the meeting of the board of managers on the 3d January, these vacancies were filled by the election of Drs. D. H. Agnew, A. D. Hall, and R. J. Levis.—*Med. News and Library.*

Stephen G. Risley, M.D., of Rockville, Ct., has been appointed examining surgeon, in accordance with the provisions of the 8th section of the act entitled "An Act granting Pensions."

Dr. C. V. R. Creed, of New Haven, Ct., has received the appointment of surgeon of the 29th (colored) regiment.

Drs. R. B. Cole and H. Gibbons are hereafter to be the Editors of the *San Francisco Medical Press.*

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, February 13th, 1864.

DEATHS.

	Males.	*Females.*	*Total*
Deaths during the week - - - - - - - -	52	52	104
Ave. mortality of corresponding weeks for ten years, 1853—1863,	36.1	38.8	74.9
Average corrected to increased population - - - -	00	00	82.318
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
19	3	11	8	1	1	2	4

Books and Pamphlets Received.—A Treatise on Human Physiology, designed for the use of Students and Practitioners of Medicine. By John C. Dalton, Jr., M.D.—Proceedings of the American Pharmaceutical Association at its Eleventh Annual Meeting, held in Baltimore, Md., Sept. 10th, 1863.—Fifth Report concerning the Aid and Comfort given by the Sanitary Commission to Sick and Invalid Soldiers.—Ninth Annual Report of the Board of Trustees and Officers of the Southern Ohio Lunatic Asylum, for the year 1863.—Eleventh Annual Meeting, for the Years 1861, '62 and '63, of the Illinois State Medical Society, held at Jacksonville, May 5th, 1863.—Annual Report of the Trustees of the Hospital for the Insane of the State of Wisconsin, for the Fiscal Year ending Sept. 30th, 1863.

Died,—In Ellington, Ct., Jan. 26th, of dropsical consumption, Dr. Joseph Partridge, aged 52, formerly of Savoy, Mass.—In Cincinnati, Ohio, L. M. Lawson, M.D., late Prof. of Theory and Practice in the Medical College of Ohio, aged 51. Dr. L. established the *Western Lancet* in 1842, and was connected with it editorially till 1854. He was at different times a professor in several of the medical colleges of the South-west, and is favorably known as the author of a work on Phthisis Pulmonalis.—Drowned at sea, Dec. 2d, Dr. C. H. Pearson, Surgeon of the ocean steam packet Ceres.

Deaths in Boston for the week ending Saturday noon, Feb. 13th, 104. Males, 52—Females, 52.—Accident, 3—apoplexy, 1—disease of the bowels, 1—inflammation of the bowels, 2—congestion of the brain, 2—disease of the brain, 2—inflammation of the brain, 2—bronchitis, 6—burns, 1—cancer, 1—canker, 1—consumption, 19—convulsions, 5—croup, 3—diarrhœa, 3—diphtheria, 4—dropsy, 4—dropsy of the brain, 2—dysentery, 1—exposure, 1—intermittent fever, 1—scarlet fever, 11—typhoid fever, 2—hæmorrhage, 1—disease of the heart, 3—intemperance, 1—jaundice, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 3—old age, 2—premature birth, 3—puerperal disease, 1—smallpox, 1—unknown, 3—disease of the uterus, 1—whooping cough, 1.

Under 5 years of age, 51—between 5 and 20 years, 11—between 20 and 40 years, 22—between 40 and 60 years, 10—above 60 years, 10. Born in the United States, 78—Ireland, 18—other places, 8.